

REMARKS/ARGUMENTS

The wording added to claims 1 and 18 finds support in the examples. The shortest storage time in the examples is 5 days in Example 3, with greater storage times in the remaining examples. The amendment reflects the recitation of "a pre-cast polyacrylamide gel" in the preambles of both claims. No new matter is presented.

This amendment underscores a key distinction between the disclosure of each of the two reference patents and the present invention, which is the inclusion of the nonionic amphiphilic polymer in a pre-cast gel, i.e., one that is stored for five days or more before use. The shadow-band problem that Applicant's invention mitigates is one that occurs in pre-cast gels that have been stored for several days. Neither Ogawa (US 4,657,656) nor Moi et al. (US 5,938,906) disclose the preparation or pre-cast gels or the use of gels that have been in storage for any significant period of time prior to use. As a result, neither Ogawa nor Moi et al. face the problem of shadow bands occurring in pre-cast gels, i.e., gels that have been in storage for at least several days before use. In each reference, the gels are apparently prepared immediately before use, and the reason in the Ogawa disclosure for the inclusion of the water-soluble polymer is to lessen the brittleness of the gels when they are removed from the glass enclosure in which they are held during electrophoresis. This is not a storage-related gel issue. The Moi et al. patent is cited for its disclosure of plastic plates rather than glass plates, and again makes no mention of pre-cast gels. In fact, the focus in Moi et al. is on the casting step, which is not something that would be done by one using a pre-cast gel.

The fact that the phenomenon that Applicant's invention addresses is specific to pre-cast gels is demonstrated by Applicant's numerous examples, which show the results of experiments performed in pre-cast gels in comparison with the same experiments formed in fresh gels. In each case, the distinction is significant, and the improvement provided by Applicant's invention is demonstrated.

In view of the above amendment and this distinction, Applicants believe all claims now pending in this Application are in condition for allowance, and reconsideration of the application is respectfully requested. Should any matters remain that can be resolved by a

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PATENT

Examiner: Olsen, Kaj K.; Art Unit: 1753

Amendment No. 2, submitted in Reply to Office Action of July 15, 2004

telephone conference with Applicant's attorney, the examiner is encouraged to telephone the undersigned at 415-576-0200.

Respectfully submitted,



M. Henry Hemes
Reg. No. 28,219

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 415-576-0200
Fax: 415-576-0300
MHH:mhh
60339540 v1